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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
3404 E. Harmony Road
Mail Stop 35
FORT COLLINS, CO 80528

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JABR, FADEY S	

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JERRY.SHORMA@HP.COM
ipa.mail@hp.com
laura.m.clark@hp.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte XIAOFAN LIN,
STEVEN J. SIMSKE,
SHERIF YACOUB, and
R. JOHN BURNS

Appeal 2009-005902
Application 10/774,321
Technology Center 3600

Decided: February 25, 2010

Before HUBERT C. LORIN, JOSEPH A. FISCHETTI, and
STEPHEN WALSH, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Xiaofan Lin et al. (Appellants) seek our review under 35 U.S.C. § 134 (2002) of the final rejection of claims 1-27. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM. [1]

THE INVENTION

This invention is a method and system for computing a licensing fee based on a measured quality of software. Specification [0003].

Claims 1 and 22, reproduced below, are illustrative of the subject matter on appeal.

> 1. A processor-based method, comprising:
> determining a quality value for a target software based on performance of the target software; and
> computing a merit-based licensing fee for the target software based on the quality value.
>
> 22. A storage device containing software that, when executed by a processor, causes the processor to:
> store operation logs of a target software;
> measure a performance level of the target software based on the operation logs;

---

[1] Our decision will make reference to the Appellants' Appeal Brief ("Br.," filed Apr. 8, 2008) and the Examiner's Answer ("Answer," mailed May 2, 2008).

determine a quality value for the target software based on the performance level; and

compute a licensing fee for the target software based on the quality value.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Miller	US 2004/0261070 A1	Dec. 23, 3004
Shuster	US 2005/0097059 A1	May 5, 2005

The Examiner took official notice "that it is old and well known in the art at the time of the applicant's invention to compare values by dividing them, or to use mathematical operations to manipulate values." Answer 6. [Herein after "Official Notice"].

The following rejections are before us for review:

1. Claims 1-2, 4-8, 10-11, 13, 15-19, and 21-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shuster and Miller.
2. Claims 3, 9, 12, 14, and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shuster, Miller and Official Notice.

ARGUMENT

The Examiner proposed modifying Shuster to include "stor[ing] and monitor[ing] the performance data of the software being tested as taught by Miller." Answer 4.

In response to this rejection, the Appellants argue 1) that the actual performance of the software is not taught by the portions of Shuster cited by the Examiner (Br. 13-14) and 2) that modifying Shuster with Miller impermissibly alters Shuster's principle of operation, and renders Shuster inoperable for its intended purpose (Br. 11).

First, the Appellants argue that the actual performance of the software is not taught by the portions of Shuster cited by the Examiner. The Examiner reasoned that given:

> the broadest reasonable interpretation, Shuster's teaching that other defects in the copy, such as background hiss indicating that the data has once been stored in analog, or encoding defects such as pops may also influence the price calculation . . . thus, the licensing program is able to calculate a price for a license based on the measured metrics (0038), teaches determining a quality value for a target software based on performance of the target software.

Answer 7.

In response, the Appellants argue that this does not necessarily mean that the software is actually "performed." Br. 13-14. The Appellants seem to be construing performed to mean "played." *See* Br. 12.

Second, the Appellants argue that modifying Shuster with Miller impermissibly alters Shuster's principle of operation, and renders Shuster inoperable for its intended purpose. Br. 11.

The Appellants assert that Shuster is directed to a system where a consumer can purchase a license for digital music, where the price is determined by analyzing the electronic properties, such as sampling rate, of the digital file itself. The Appellants state, "This type of digital file analysis

is part of Shuster's principle of operation, because Shuster uses these analyses in generating checksums of the digital music file, which are later used to calculate a licensing price." Br. 12 (emphasis omitted). The Appellants assert that Shuster does not teach "actually performing (*e.g.*, playing)" the digital music file to measure the metrics and conclude that the performance of the file is not needed and would be nonsensical. Br. 12. The Appellants then state "[u]nlike Shuster, whose principle of operation includes the non-performance analysis of digital music files, Miller teaches that the actual performance of software is used to determine the quality of the software." Br. 13. Thus the Appellants conclude that modifying Shuster would impermissibly alter Shuster's principle of operation. *Id.*

The Appellants also assert that "Shuster's intended purpose is the automatic analysis of digital music files to determine licensing costs" and that combining Miller's method of analysis with Shuster renders Shuster inoperable for its intended purpose for the same reasons as above. *Id.*

ISSUES

The issue is whether the Appellants have shown that the Examiner erred in rejecting 1-2, 4-8, 10-11, 13, 15-19, and 21-27 under 35 U.S.C. §103(a) as being unpatentable over Shuster and Miller. Specifically, the first issue is whether independent claims 1, 16 and 25 require executing or playing the targeted software and, if so, whether this is taught by the combination of Shuster and Miller. The second issue is whether the proposed combination of Shuster and Miller, as it relates to independent claim 22, impermissibly alters the principle operation of Shuster or renders Shuster inoperable for its intended purpose. The rejection of dependent

claims 3, 9, 12, 14, and 20 under 35 U.S.C. §103(a) as being unpatentable over Shuster, Miller and Official Notice also turns on these issues.

FINDINGS OF FACT

We find that the following enumerated findings of fact (FF) are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

Claim construction

1. The Specification states: "The phrase performance of software is used in its broad sense to include various attributes of the software, including but not limited to accuracy, response time, and throughput." Specification [0006].
2. Definitions of "performance" are: "1. the act of performing; execution 2. the manner in which a machine operates or functions." *See The Pocket Webster School & Office Dictionary* 528 (1990).

The scope and content of the prior art

Shuster

3. Shuster's invention "is directed to a method and system for facilitating the purchase of a copyright license for an unauthorized copy of a copyrighted work." Shuster [0004].
4. Shuster describes that a copyright work can include a computer program, music, movies and the like. Shuster [0023].
5. Shuster describes a computer program that is executable by a processor. Shuster [0014].

6. Shuster describes a program named conscienceware, which calculates a licensing fee for a downloaded file. Shuster [0026].

7. In one example, Shuster describes the downloaded file as software. Shuster [0030].

8. In another example, Shuster states:

> At step 156, the conscienceware program measures various metrics of the downloaded file in order to determine a fair price for a license. For example, for a downloaded digital copy of a copyrighted song that is in the MP3 format, the conscienceware application determines a sampling rate for the MP3 music file. . . . Other metrics that may be measured and uploaded to the server may include the length in bytes of the file, the version of the file, the type of work downloaded, and the like.

Shuster [0037].

9. Shuster also states:

> After all of the relevant information is stored in the cache memory 33, such as the identity of the downloaded file, the sampling rate, the version, the type of work, and the like, at step 164 the licensing program 29 running on the server 22 computes a price for a license for the downloaded file. Specifically, the licensing program 29 computes a price based on the measure metrics.

Shuster [0038.]

10. Shuster states:

> For example, if the MP3 music file has a sampling rate that is below 32 kbps, then it may be licensed for free. If the MP3 music file has a sampling rate above 32 kbps but below kbps, then it may be licensed for $0.50, and so on. Other defects in the copy, such as background hiss indicating that the data has once been stored in analog (i.e., cassette

> tape or the like), or encoding defects such as pops may also influence the price calculation.
>
> Shuster [0038].

Miller

11. Miller describes a method to automatically test, analyze, promote and deploy new versions of software. Miller [0002].

12. Miller states "As the software version is being used, its performance is automatically monitored based on predetermined monitoring criteria. Specifically, data relating to the performance of the software version is gathered." Miller [0017].

13. Miller describes a monitoring system that collects data, such as reliability, availability, usability, etc., as a user uses the software and stores the data in a storage unit. Miller [0028].

Any differences between the claimed subject matter and the prior art

14. While Shuster describes that the conscienceware measures the metrics, Shuster is silent as to how the conscienceware measures the metrics.

15. Shuster does not describe storing operation logs.

16. Shuster does not describe basing a measure of performance level of the target software on the operation logs.

The level of skill in the art

17. Neither the Examiner nor the Appellants have addressed the level of ordinary skill in the pertinent art of software licensing. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau,* 261 F.3d 1350, 1355 (Fed. Cir. 2001) ("[T]he absence of specific findings

on the level of skill in the art does not give rise to reversible error 'where the prior art itself reflects an appropriate level and a need for testimony is not shown'") (Quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

Secondary considerations

18. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, a pending claim is given the broadest reasonable construction consistent with the specification and should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

> [W]e look to the specification to see if it provides a definition for claim terms, but otherwise apply a broad interpretation. As this court has discussed, this methodology produces claims with only justifiable breadth. *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984). Further, as applicants may amend claims to narrow their scope, a broad construction during prosecution creates no unfairness to the applicant or patentee. *Am. Acad.*, 367 F.3d at 1364.

In re ICON Health and Fitness, Inc., 496 F.3d 1374, 1379 (Fed. Cir. 2007). Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003).

Obviousness

> Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 550 U.S. at 407 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.") The Court in *Graham* further noted that evidence of secondary considerations "might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Graham,* 383 U.S. at 17-18.

ANALYSIS

The rejection of claims 1-2, 4-8, 10-11, 13, 15-19, and 21-27 under 35 U.S.C. §103(a) as unpatentable over Shuster and Miller.

Though the Appellants argue claims 1-2, 4-8, 10-11, 13, 15-19, and 21-27 as a group and state that independent claim 1 is representative (Br. 11), we will address each independent claim separately due to the varying scope. We note that the Appellants make no arguments directed to the limitations of the dependent claims. 37 C.F.R. § 41.37(c)(1)(vii) (2009).

Claims 1-15

Claim 1 recites "determining a quality value for a target software based on performance of the target software." The Appellants seem to argue that "performance of the target software" requires that the software actually be executed or played. *See* Br. 12-14. However, the Appellants' argument does not give "performance" the broadest reasonable meaning in light of the Specification. "[D]uring examination proceedings, claims are given their broadest reasonable interpretation consistent with the [S]pecification." *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000). *See also In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364, (Fed. Cir. 2004).

We find that while "performance" can mean the act of performing or execution, "performance" can also mean "the manner in which a machine operates or functions." FF 2. The second meaning is consistent with the Specification which states: "[t]he phrase performance of software is used in its broad sense to include various attributes of the software, including but not limited to accuracy, response time, and throughput." Specification [0006]. Therefore, giving claim 1 the broadest reasonable interpretation consistent with the specification, we construe claim 1 to encompass determining a quality value for target software based on various operating manners or attributes of the target software.

Shuster describes measuring metrics, such as length in bytes, sampling rate, version, or defects of a digital file. FF 8. These metrics are attributes of the files. Therefore, given the broadest reasonable construction

of the limitation above, we find that Shuster teaches determining a quality value for target software based on various attributes of the target software.

Accordingly, we find that the Appellants have not shown that the Examiner erred in rejecting claim 1, and claims 2-15, dependent thereon, under 35 U.S.C. § 103(a) as unpatentable over Shuster and Miller.

Claims 16-21

Claim 16 does not recite a limitation that requires that the quality value is determined based on performance of the target software. The word "performance" does not appear in claim 16. The Appellants arguments are drawn to a limitation not appearing in claim 16. Therefore, we find that the Appellants have not shown that the Examiner erred in rejecting claim 16, and claims 17-21, dependent thereon, under 35 U.S.C. § 103(a) as unpatentable over Shuster and Miller.

Claims 22-24

Unlike the other independent claims, claim 22 recites a storage device that contains software that causes a processor to: 1) "store operations logs of a target software", 2) "measure a performance level of the target software based on the operation logs", and 3) "determine a quality value for the target software based on the performance level." The Examiner found that Miller taught storing operations logs and measuring a performance level based on the operations logs. Answer 3-4. The Examiner then combined Shuster and Miller to include measuring performance level based on operation logs as taught in Miller. Answer 4.

The Appellants argue that the Examiner's combination of Shuster and Miller is improper because "modifying Shuster with Miller impermissibly alters Shuster's principle of operation and . . . modifying Shuster with Miller renders Shuster inoperable for its intended purpose." Br. 11. To support this argument, the Appellants assert that Shuster's principle of operation or intended purpose is the automatic non-performance analysis of digital music files. *See* Br. 11-13.

However, we find that Shuster doesn't support this assertion. We find nothing in Shuster that suggests that its intended purpose or principle of operation is limited to the automatic non-performance analysis of digital music. While in the preferred embodiment Shuster describes analyzing digital music file to measures various metrics of theses files (FF 8-10), Shuster itself does not limit the downloaded files to be digital music files (FF 3-4 and 7) nor does it describe how the computer program measures the metrics (FF 14). Shuster disclosure does not limit its intended purpose or principle of operation to be the automatic non-performance analysis of digital music.

Accordingly, we find that the Appellants have not shown that the Examiner erred in rejecting claim 22, and claims 23 and 24, dependent thereon, under 35 U.S.C. § 103(a) as unpatentable over Shuster and Miller.

Claims 25-27

Claim 25 recites a "means for measuring a performance level of a target software" and a "means for determining a quality value for the target software based on the performance level." These limitations are written in means-plus-function format. Means-plus-function claim language must be

construed in accordance with 35 U.S.C. § 112, paragraph 6, by "look[ing] to the specification and interpret[ing] that language in light of the corresponding structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure." *In re Donaldson Co.,* 16 F.3d 1189, 1193 (Fed. Cir. 1994) (en banc).

The Appellants equate both of these means to CPU 210 having software 230 for performing these functions in the Specification. App. Br. 8. As discussed above with regards to claim 1, we find that Shuster describes a processor that executes a computer program that performs similar functions. FF 5-10. The Appellants do not argue that the computer program in Shuster is not an equivalent to the corresponding structure described in the Specification. Accordingly, we find that the Appellants have not shown that the Examiner erred in rejecting claim 25, and claims 26-27, dependent thereon, under 35 U.S.C. §103(a) as unpatentable over Shuster and Miller.

The rejection of claims 3, 9, 12, 14, and 20 under 35 U.S.C. §103(a) as unpatentable over Shuster, Miller and Official Notice.

The Appellants argue against the rejection of claims 3, 9, 12, 14, and 20 for the same reasons used to argue against the rejection of claims 1-2, 4-8, 10-11, 13, 15-19, and 21-27. Br. 14-15. Accordingly, because we found them unpersuasive as to that rejection, we find them equally unpersuasive as to error in the rejection of claims 3, 9, 12, 14, and 20. Accordingly, we find that the Appellants have not shown that the Examiner erred in rejecting claims 3, 9, 12, 14, and 20, under 35 U.S.C. §103(a) as unpatentable over Shuster, Miller and Official Notice.

CONCLUSIONS OF LAW

We conclude that the Appellants have not shown that the Examiner erred in rejecting claims 1-2, 4-8, 10-11, 13, 15-19, and 21-27 are under 35 U.S.C. §103(a) as unpatentable over Shuster and Miller

The Appellants have not shown that the Examiner erred in rejecting claims 3, 9, 12, 14, and 20 under 35 U.S.C. §103(a) as unpatentable over Shuster, Miller and Official Notice.

DECISION

The decision of the Examiner to reject claims 1-27 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
3404 E. Harmony Road
Mail Stop 35
FORT COLLINS CO 80528